

Usability Recommendations

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Table of Contents

Table of Contents	2
Executive Summary	3
Successes.....	6
Findings & Recommendations.....	7
Mental Model	13
Recommendation Priorities.....	16

Executive Summary

CHCF is undertaking an effort to understand the needs of CalNHS site users. The CHCF team understands that improving the web site's usability and information architecture is a crucial component for improving consumers', discharge planners', and individuals in the industry's research and understanding of long term care options and facility ratings.

CHCF asked Bolt | Peters to conduct a usability study on CalNHS.org, with a specific focus on search and ratings provided on the site. The main goals of the study were as follows:



CalNHS homepage

- Determine if the appropriate amount of information is being disclosed at each page level
- Identify if users in the industry understand their ratings
- Learn what users are coming to the site for
- Discover the mental model of these site visitors – how do they think about researching long term care, what is their timeline for finding care and what is most important to them throughout the entire research process
- Understand what information is missing from the site
- Learn if users understand the star rating system
- Understand how important the timeliness of the data is in their research process
- Learn what establishes credibility for long term care information
- Identify if users go to advanced search and understand the options provided there
- Learn what additional resources site visitors use in their research process

In order to **significantly improve the site and user experience**, the following improvements need to be made:

- Improve information visualization
- Eliminate star ratings and clarify quality of care ratings
- Revise 'About Ratings' information
- Improve search visibility
- Clarify language
- Provide more details on facilities

Process and Methodology

Process

This study consisted of sixteen one-on-one usability interviews, each lasting between 30 and 50 minutes. Testing was conducted remotely from Bolt | Peters' portable laboratory and on site at CHCF. For a detailed description of the participants please refer to the [User Matrix](#). Participants were recruited using a short screener on the CalNHS.org homepage. Users' screen movements and commentaries were digitally captured. Analysis was performed with a focus on users' behavior.

Recruiting

The following data was gathered from each recruitment survey respondent

- What they were looking for on CalNHS.org
- Age
- Job title and industry
- The relationship to the person needing care
- The number of times they had visited the site
- Name
- Phone number
- Email

Target Audience

Recommendations were made with consideration of the following primary target demographics:

- Industry – administrators from care facilities, insurance contractors, and ombudsmen
- Discharge planners – care givers looking for a facility for a patient
- Consumers – Individuals searching for care for themselves, a friend, or a family member

Example of the online screener used on the CalNHS homepage to recruit users to participate in the study

User Matrix

	Name	Looking For	Job Title & Industry	Number of site visits	Age	Relationship to person needing care:	Timeline for finding care
1	Robert	Looking for nursing home for a friend	Consultant	1-5	45 to 54	a friend	Yes, for within a month
2	Mark	To research nursing homes	Economist, FDIC	this is my first time	19 to 34	n/a	No, not currently looking
3	Vivienne	N/A	Social Worker - Home health & Senior housing/place ment	1-5	45 to 54	a patient	Yes, for next 2-6 months
4	Oliver	email invitation	IT Sys Admin Health Care	this is my first time	35 to 44	a family member	No, not currently looking
5	Judy	Learn more	Executive Asst. Nonprofit	1-5	55 to 64	yourself	No, not currently looking
6	Carol	interest in nursing home care	Gerontologist	1-5	45 to 54	n/a	Yes, for 13 months out
7	Louie	to find a NH number	Social Worker - Healthcare	6-10	45 to 54	a patient	No, not currently looking
8	john	wife told me	facilities mgr. education	this is my first time	65+	yourself	No, not currently looking
9	Soo	interested in website usability study	Lab assistant in a Research (neuroscience) lab	this is my first time	19 to 34	a family member	No, not currently looking
10	Shaun	To find out more about a particular nursing home	senior care organization	6-10	45-54	a friend	2-6 months
11	Gabrielle	Looking for facilities in a particular region	Network Coordinator - Health Insurance	more than 20	35 to 44	n/a	Yes, for within a month
12	Isabel	Friend's referral	Researcher, Education Policy	this is my first time	19 to 34	a family member	No, not currently looking
13	john	I was following a link on KQED re: long-term care.	Teacher - Education	this is my first time	35 to 44	yourself	No, not currently looking
14	Joe	to look a facility up	State Long-Term Care Ombudsman	more than 20	45 to 54	n/a	n/a
15	Luis	To find out information for my mother	Student - Education	this is my first time	19 to 34	a family member	No, not currently looking
16	Thomas	periodically monitor the accuracy of the information	Executive director of a Skilled nursing facility	more than 20	45 to 54	n/a	No, not currently looking
17	Anne	To find information about psychiatric facilities	Socia Work Supervisor, VA Nursing Home	6-10	35 to 44	a patient	Yes, for within a month

Successes

Credibility

The CHCF name and the partnership with UCSF mentioned on the site made site visitors feel the information on the site was from a credible source.

User 04: I would have good faith in this site. I would trust the CHCF as being pretty accurate and unbiased. And the partnership with UCSF makes me feel good too.

Starting Point

Consumers and discharge planners felt that CalNHS.org was a good place to start searching for long term care for a patient, family member, or friend.

User 04: This seems like it could definitely provide you enough to get started and narrow down your search.

Non-biased Information

While consumers may not be familiar with CHCF, they felt that the information provided on the site was non-biased.

User 03 First I'm going to go to the about us. It looks like its not really promoting one specific home so I would think this is a really good site for non-partisan information.

Providing Information on a Variety of Care Options

This site expanded users' understanding of the variety of care options available. While many users were searching for nursing home care, they were exposed to alternative choices in care.

User 08: I like the bold your guide to long term care in CA. It's broken into 4 sections. Nursing homes are standard kinds of nursing homes, home health care that means someone coming to the house. Hospice that's for terminally ill. I'd be interested in seeing what those other care options are. It depends on the state of my health.

Findings & Recommendations

Improve Information Visualization

Findings:

- The depth of information was not apparent from the Ratings and Profile pages. Many users did not know additional information resided on the site.
- Industry users believed that the stars did not adequately capture the nursing home's actual rating. One user noted that two facilities would be given the same rating even though one had twice as many deficiencies.
- When trying to understand the rating system, users did not know what differentiated an above average facility from an average and below average facility.
- Some users stated that they were not familiar with a 3 star ratings system and would be able to infer more from a 5 star ratings system.
- 'NA' made users feel like the data was incomplete and they wondered why it would not be available.



Current rating search results page

Recommendations:

- Create alternative ways to provide more information for each facility on the summary page and test with users (see mock up)
 - Provide sliding scale ratings system for variables such as quality of care and clearly mark a facility with a maximum rating.
 - Provide dollar signs (\$\$) for the finances and cost of the facility.
 - Indicate a grade (A, B, C, D, F) of the facility based on the survey data. Most people are more familiar this kind of scale than a 3 star rating scale.
 - Allow users the ability to sort based on specific ratings or based on the overall rating.
- Explain why information is not available (NA) and improve terminology for example, 'still researching'.
- Allow users to compare more than three facilities and provide more information about each individual facility on the comparison page.



Mock-up of rating display with finances and cost with a dollar sign, a graphical display of each of the ratings categories, and an overall rating with an A, B, C, D, F grade.

Supporting Quotes:

User 15: I didn't realize these were links (for the staffing and quality of facility)

User 09: I didn't realize that I can click on these to get more information. I don't like this intermediary site. It just seems annoying. I don't get more information that I didn't have on the other page

Eliminate Star Ratings and Clarify Quality of Facility Ratings

Findings:

- When users saw the star ratings for the 'Quality of Facility', they were unsure how to interpret them.
- Likewise, when looking at the list of deficiencies and citations, it was unclear if a higher number or lower number was best.
- Consumers did not know what deficiencies and complaints were under 'Quality of Facility'.

Quality of Facility (Last Survey Date: 08/26/2004)	★★★
Federal deficiencies	★★
State deficiencies	★★★★
Complaints	★★★★

Current high star rating for deficiencies

Recommendations:

- Eliminate star rating for federal and state deficiencies. Provide either a sliding scale as mentioned in the [previous recommendation](#), or the raw number of deficiencies and the state average per year so users can make a comparison on their own.
- List survey data for deficiencies and citations only if the survey has been completed for that time period.
- Provide a link that will clearly explain federal and state deficiencies and what they mean.
- Provide links from the ratings to 'more information' for each category to clearly communicate that the detailed survey data is available.

All Deficiencies and Citations								
Reporting Period: 01/01/2000 - 02/29/2004								
	2005	2004	2003	2002	2001	2000	Total	State Average
Quality of care	0	4	8	17	16	7	52	22
Mistreatment	0	1	0	2	2	1	6	1
Resident assessment	0	3	1	1	5	4	14	5
Resident rights	0	2	2	7	3	5	19	9
Environment	0	1	2	2	5	3	13	8
Nutrition	0	0	0	1	2	2	5	5
Pharmacy	0	2	0	6	4	0	12	6
Administration	0	1	3	3	4	1	12	10
Life safety	0	5	0	0	0	0	5	4
Total	0	19	16	29	41	23	138	71

Table with number of deficiencies.

Supporting Quotes:

User 08: I don't know if three stars means that they have a lot or a little deficiency.

User 10: I don't understand what these high stars for deficiencies mean

User 15: Complaints that has one star...I don't know how that works

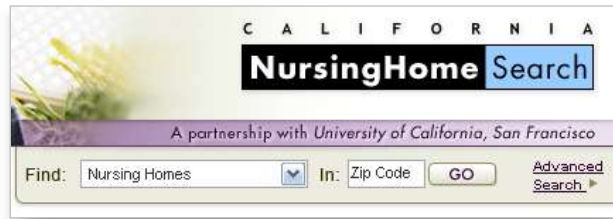
Improve Search Visibility and Functionality

Findings:

- When users were unfamiliar with the site, they gathered they were supposed to be able to find ratings, but were not sure where to find them on the site.
- The advanced search options were crucial to users searching for a facility that catered to specific needs such as language or disease,

however, novice users did not know these search options existed.

- When conducting a search for someone else, users often did not know the zip code for the area they needed to find care in and expected to be able to conduct searches based on region, city, or county.
- Users didn't know how to interpret the term 'advanced search' and it often went unused.



Current search bar that was difficult for new site users to find

Recommendations:

- Increase real estate for search box.
- Provide a search box from the homepage above the fold (above 'explore your long term care options')
- Allow users to search based on region or county and zip code.
- Provide AJAX drop down that will allow users to further narrow their search based on special needs or multiple locations. Alternately, on the search results page, provide users with advanced search options to allow further refinement of results.
- Allow users to search based on 'language spoken by care providers'.

Supporting Quotes:

User 08: I don't know my daughter's zip code. The whole bay area would work for me.

User 04: We have patients into eagle rock and other kinds of northern points of LA and San Gabriel area.

User 15: It doesn't come back very quickly where the ratings are. Since I'm planning on staying in the area... If I had her down there I wouldn't be able to see her often.

Clarify Language

Findings:

- Consumers did not understand industry specific language on the site such as 'citations and deficiencies'
- User in the industry and discharge planners were concerned that language such as 'freestanding' or 'hospital' did not properly communicate the significance of these attributes.

Payment Accepted: Medicare, Medi-Cal
Number of Beds: 50
Facility Type: Freestanding

Example of industry jargon on profile page

Recommendations:

- Eliminate the industry jargon.
- Provide industry specific information on a separate section of the site.

Supporting Quotes:

User 16: I'll be looking in San Mateo. I happen to know the difference between a freestanding hospital and a free standing facility, but I don't know that most people would know that.

User 02: Continuing care retirement communities. There must be another name for this that those who work there. Some of the jargon here is industry specific.

Provide More Details on Facilities

Findings:

- While users appreciated the non-biased information provided on the site, there were details that were critical for users to consider visiting the facility. These things included language and if the facility had the resources to care for a patient with a specific disease.
- When looking at the profile of a facility, users wanted to see images.
- Consumers liked the idea of having reviews on the nursing homes.



Current profile page where users expected more information about the details of the facility before they decided to visit the facility

Recommendations:

- On the profile page, provide information about specific needs which the facility meets such as language and specialized care.
- Allow users to search for specific needs (like language and specialized care) from the search results page.
- Provide images of the facilities.
- Provide dollar signs for the cost at the top of the profile.
- Ensure name of administrator is current.
- Explain industry-specific terms like 'freestanding'.

Supporting Quotes:

User 07: So I look in Pasadena. I check if they have wanderers or secure or locked ward. I'd check that one. They don't have anything about language spoken, but that would be a good one

User 16: I need information about the admission restrictions, more information about the specialty services. Otherwise, it's helpful that there's a list. That's a good starting point. It would be nice if there were more specific things.

Revise 'About Ratings' Information

Findings:

- When users were unfamiliar with CHCF or how the ratings were calculated and went to the 'About the Ratings' section, they did not get a clear understanding of how the ratings were established.
- On the search results page, users often did not see the explanation of the ratings located at the end of the facilities list.
- The 'Quick Quiz' led users to think that the web site had an agenda and that data was out of date.



Recommendations:

- Provide a clear explanation of the ratings with visual examples of the rating scale, how it works, and how to sort by the different ratings.
- Explain how facilities get their grades or ratings with clear visuals of the A,B,C,D, F or graphical ratings.
- List bullet points that state the source and purpose of the ratings.
- Emphasize the non-biased source of the information as well as the state and federal government sources.
- Minimize text on the first page of explanations and allow users to find additional information if they need more details on the surveying of the individual facilities.
- Make the search box larger on the nursing homes homepage (see screen shot).

Current about the ratings page. Users commented that they still didn't understand the ratings after visiting this page.

Supporting Quotes:

User 12: I would expect a brief explanation of where these ratings come from and then it would take me to a long article.

User 14: What's the threshold? I don't know what criteria is used to judge and assign stars

User 16: I don't really know the difference between 2 and 3 star rating

Mental Model

Consumer

Putting a friend or family member into long term care is a difficult process for anyone involved. A decision about a care facility is not going to be made solely on the information provided on a website but based on a number of factors.



Important information

The information that is important and factors into the consumer's research is in the details. These information needs include:

- Languages spoken by the care providers
- Opinions of other residents and family members of residents
- Cost
- Location
- The opinions of other family members or people involved
- If they can be seen by their own physician at the facility
- If a facility provides care for the specific needs of their family member or friend (such as Alzheimer's)
- The quality of the facility and care provided
- That the information about the facilities they research be timely and accurate

Other Resources Used

Most of these users said they would use Google to search for information on long term care. One user mentioned that she used the yellow pages because it provided more listings. In addition, users said they would ask people they knew for recommendations.

Industry

Facility administrators, ombudsman, and insurance contractors all come to the site to see how facilities compare to each other and state averages.

Administrators' Concerns

The administrators expressed concern that the information provided on the site did not provide an adequate picture of the facilities and did not provide the consumer with the proper information to interpret the ratings provided on the site.



As with the other segments, it was also important to this segment that the information about the facilities they research be timely and accurate.

Other Resources Used

The main other online resource used by this audience segment was medicare.gov. However, the ombudsman and the insurance contractors use their own visits and the visits of their nurses to the facilities as a more heavily weighted source of data.

Discharge Planner

This audience segment has the challenging job of finding the right facility for a patient within a limited period of time. While these individuals have the advantage of knowing the terminology of the industry, there are key pieces of information they need to know before they can select the right facility.



Important Information

Important information for this audience segment includes the following:

- If a care facility will be able to meet the special needs of the individual patient (such as Alzheimer's)
- Cost
- That the information about the facilities they research be timely and accurate
- If the patient can be seen by their own care provider while a resident at the facility

Pains and frustrations

- Lack of resources and detailed information available

Other Resources Used

- The phone book
- Their existing contacts at facilities
- The senior circle site

Recommendation Priorities

Priority Ranking (1 is highest)	Description
1	Overhaul star ratings and implement grade, overall ratings, and graphical representation of ratings.
1	Provide a search box from the homepage above the fold (above 'explore your long term care options').
1	Allow users to search based on region or county and zip code.
2	Increase real estate for search box.
2	Provide a search box from the homepage above the fold (above 'explore your long term care options').
2	Eliminate the industry jargon.
2	Provide AJAX drop down that will allow users to further narrow their search based on special needs or multiple locations. Alternately, on the search results page, provide users with advanced search options to allow further refinement of results.
2	Allow users to search for specific needs (like language and specialized care) from the search results page.
2	Provide images of the facilities.
2	Provide clear explanation of the ratings with visual examples of the rating scale, how it works and how to sort by the different ratings.
2	List bullet points that state the source and purpose of the ratings
2	Emphasize the non-biased source of the information and the state and federal government sources.
3	Allow users the ability to search based on 'language spoken by care providers'
3	On the profile page, provide information about specific needs that the facility meets such as language and specialized care.
3	Ensure name of administrator is current.
3	Explain how facilities get their grades or ratings with clear visuals of the A,B,C,D, F or graphical ratings & Minimize text on the first page of explanations and allow users to find additional information if they need more details on the surveying of the individual facilities.
3	Eliminate quick quiz.
4	Provide separate section of the site for industry specific information and language.
4	At summary at the top of the profile provide dollar signs for the cost.